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ABSTRACT

An interactional view of the factors of school success or failure is presented which encompasses the student's strengths, weaknesses, and limitations on the one hand and specific classroom situational factors on the other. The child's success in the classroom is seen as dependent upon the congruity of his characteristics and the characteristics of the classroom in which he is required to perform. Therefore, the ability of the teacher to personalize instruction may be the most important single factor in preventing or mitigating learning difficulties for a number of students. It is suggested that children who have been labeled as learning disabled may be placed in either of three groups: children with major disorders which interfere with learning, children who are adversely affected by the particular classroom situation, and children with minor disorders who have sufficient compensatory powers to cope with their problems under appropriate circumstances. A set of sequential and hierarchical teaching strategies is outlined involving a two-step process by which teachers can identify and attempt to meet the remedial needs of children in each of these groups. Finally, the roles played by specialized teaching techniques and materials in correcting such learning problems are analyzed. (Author/DH)

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THE NOT-SO-SPECIFIC LEARNING DISABILITY POPULATION:

I. AN INTERACTIONAL VIEW OF THE CAUSES OF LEARNING PROBLEMS

II. IDENTIFICATION AND CORRECTION THROUGH SEQUENTIAL AND HIERARCHICAL TEACHING STRATEGIES

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With the writing of the Children with Specific Learning Disabilities Act of 1969, Congress has added its official sanction to this category of exceptionality. The term Specific Learning Disabilities, which Congress has adopted suggeststhat the target population consists of a definite type of problem youngster.* And yet, as long as current practices remain unchanged, it seems more than likely that the group of students serviced under such an Act will continue to be as heterogeneous with regard to both etiology and appropriate remedial strategies as the Learning Disabilities (Disorders) population has been in the past.

Despite all that has been written about children with Learning Disabilities in the last several years, neither the nature nor the implications

*Congress adopted the definition formulated by the National Advisory Committee on Handicapped Children which identifies children with specific learning disabilities "as those who have a disorder in one or more of the basic psychological processes involved in understanding or in using language (spoken or written), which disorder may manifest itself in an imperfect ability to listen, think, read, write, spell, or do mathematical calculations. These disorders include such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia." The number of youngsters who fit this definition has been conservatively estimated as ranging from 1 to 3 percent of the school population or roughly 500,000 to 1,500,000 students.

of the heterogeneity which exists in this population have been widely discussed in the literature. In particular, little has been written about the likelihood that, in practice, the group categorized as Learning Disabled includes not only youngsters who actually have major disorders which interfere with their learning, but also youngsters whose learning problems stem primarily from the deficiencies of the learning environment in which they are enrolled. The purpose of this article is (a) to discuss an interactional view of factors which determine school success and failure, (b) to relate this model to the heterogeneity which exists in the Learning Disability population, and (c) to suggest procedures for identifying and meeting the remedial needs of major subgroups in the Learning Disability population.

I. An Interactional View of the Causes of Learning Problems

At present, the majority of youngsters who come to be diagnosed as Learning Disabled have already experienced some degree of failure in their efforts to perform as requested in the classroom. It is well documented that such failure produces effects which can confound efforts to diagnose, reliably and validly, the cause of the problem. Thus, it seems likely that many youngsters who are diagnosed as Learning Disabled are so-labeled on the basis of inferences derived from data which are of questionable "postdictive" validity. In fact, it may be that such youngsters are so-labeled primarily on the basis of assessment data which reflect little more than the effects of the school failure.

Despite the lack of reliable and valid etiological data, many professionals have tended to act as if all youngsters who are labeled as Learning Disabled are handicapped by an internal disorder which has caused the

learning problem. Unfortunately, this emphasis on the "disordered child" has tended to restrict the range of efforts designed to enhance our knowledge regarding the etiology, diagnosis, remediation, and prevention of Learning Disabilities.

There is viable alternative to this "disordered child"model. This alternative view emphasizes the dynamic nature of the process by which school skills are acquired. Thus, the model stresses that a given youngster's success or failure in school is a function of the interaction between his strengths, weaknesses, and limitations and the specific classroom situational factors he encounters including individual differences among teachers and differing approaches to instruction. Stated differently, with specific reference to children who manifest school learning problems, this interactional model suggests that such problems result not only from the characteristics of the youngster, but also from the characteristics of the classroom situation to which he is assigned.

Key Characteristics of the Youngster and the Classroom

Throughout the following discussion, there is frequent reference to the characteristics of the youngster and of the program in which he is required to perform. Therefore, there is a need to be more explicit as to just which characteristics are of major relevance.

The important characteristics of the youngster are conceptualized as his behaviors, skills, interests and needs as manifested in the school situation. In addition, of course, it is recognized that all youngsters differ from each other in terms of: (a) development -- in sensory, perceptual, motoric, linguistic, cognitive, social and emotional areas; (b) motivation -- defined in this instance as the degree to which a youngster views a specific classroom activity or task as meaningful, interesting, worth the effort, and

attainable through an appropriate amount of effort; and (c) performance -- emphasizing rate, style, extent, and quality as the major variables.

The important characteristics of the classroom situation include the personnel, goals, procedures and materials which are employed in the school's efforts to provide effective and efficient instruction. Of particular relevance for the following discussion, these situational variables are seen as combining differentially to produce classrooms which vary critically in terms of the degree to which the program: (a) allows for the wide range of developmental, motivational, and performance differences which exist in every classroom; (b) is compatible (does not conflict) with the fostering of each youngster's desire to learn and perform; and (c) is designed to detect current and potential problem students and is able to correct, compensate for, and/or tolerate such deviant youngsters. This dimension may be conceptualized as the degree to which the program is personalized.*

*Classrooms which are personalized usually have a wide variety of "centers" designed to foster and stimulate interest in learning; the teacher in such a classroom typically emphasizes individualized programs for each youngster rather than a three group, basal text oriented approach to instruction, and, in general, she attempts to minimize failure experiences, as well as tedious and boring activities.

It is recognized that many professionals do not feel that such personalized programs can be developed in regular classroom programs which enroll 35-40 students. Therefore, it is worth noting that this writer is involved with a project which has and is currently training teachers of culturally disadvantaged youngsters so that they are able to successfully personalize classroom programs containing such large numbers of youngsters.

Formal Hypotheses and Implications

The nature of the interaction of the child and program characteristics, then, is seen as the major determinant of school success or failure. The hypothesized relationship between these two sets of characteristics and school success and failure can be stated formally as follows: the greater the congruity between a youngster's characteristics and the characteristics of the program in which he is required to perform, the greater the likelihood of school success; conversely, the greater the discrepancy between the child's characteristics and the program characteristics, the greater the likelihood of poor school performance.

This hypothesis suggests that there are children whose learning difficulties are due, primarily, to the fact that their classroom programs are not effectively personalized to accomodate individual differences. Therefore, as a corollary, it is hypothesized that the greater the teacher's ability in personalizing instruction, the fewer will be the number of children in her classroom who exhibit learning problems; conversely, the poorer the teacher's ability in personalizing instruction, the greater will be the number of children with learning problems. It is unknown how many of these learning problem youngsters are diagnosed as Learning Disabled at some point in their schooling. However, with the increasing interest in the area of Learning Disabilities, it seems probable that the number of such youngsters in the population labeled as Children with Learning Disabilities is increasing.

More specifically, it is hypothesized that there are at least three types of youngsters with learning problems within the group diagnosed as Learning Disabled. In addition to (a) youngsters who do have major disorders which predispose them to learning difficulties, there are (b) youngsters who

do not have such internal disorders but who simply do not function well in non-personalized instructional program, and (c) youngsters who do have minor disorders but who, under appropriate circumstances, are able to compensate for such disorders in mastering school learning tasks, e.g., if the instructional process is appropriately motivating.* The position taken here is that whenever a youngster's learning problems can be attributed to deficits in the instructional process, that child should not be categorized as Learning Disabled. Therefore, for purposes of this discussion, the non-disordered children are referred to as Type I learning problems, the children with minor disorders are referred to as Type II learning problems, and youngsters with major disorders, i.e., Children with Specific Learning Disabilities, are referred to as Type III learning problems.

In this connection, the question regarding what percentage of the current Learning Disability population actually are Type III, rather than Type I and II, problems is an intriguing one. From personal experience, the Type III group appears to be only about 10-15 percent of the total group currently labeled as Learning Disabled. It is recognized, however, that without empirical data, such an estimate is easily challenged.

*The issue of compensatory mechanisms has not been well studied, but there are ample examples of highly motivated individuals who have overcome severe handicaps in their efforts to understand and communicate with others.

Summarizing to this point, what these hypotheses and inferences suggest is: (1) that the population currently labeled as Children with Learning Disabilities consists of at least three major subgroups of youngsters with learning problems, ranging from those youngsters whose problem seems to stem primarily from the deficiencies of the learning environment to those who actually have major disorders interfering with learning and (2) that there is a significant relationship between teacher's ability to personalize instruction and the type and relative proportion of learning problem youngsters likely to be found in their classrooms. Specifically, it is suggested that the more able the teacher with reference to personalizing the classroom, the fewer the Type I and II learning problem youngsters who will be found in her classroom.

II. Identification and Correction Through Sequential and Hierarchical Teaching Strategies

The view of the nature of the heterogeneity which exists in the Learning Disability population which has been described has specific implications for classroom efforts focusing on the diagnosis, remediation, and prevention of learning problems. Based on this view, specific teaching strategies for diagnosing and remedying the general types of learning problems described above have been conceptualized and are presented in Figure 1.

Insert Figure 1 about here

Essentially, what is suggested is a two step sequential process by which the teacher (1) establishes a personalized learning environment,

and then, if necessary, (2) employs up to three sequential and hierarchical remedial strategies in a sequence which is predetermined by the success or failure of each attempted strategy. That is, after the first step has been initiated, the teacher proceeds to the second step for those youngsters who continue to manifest occasional-to-chronic learning difficulty. The three sequential and hierarchical strategies which are included for possible use during this second step represent three different levels of instructional focus. Level a emphasizes maintaining the focus on behaviors, skills, content and concepts which are related to basic school subjects. Level b emphasizes instruction of prerequisites which are needed before school subjects can be mastered. Level c attempts to deal with any pathological behaviors and/or any underlying process deficits which may interfere with school learning.

It should be noted that no formal tests are employed to specify etiology or level of remedial needs; assessment procedures are employed only to determine instructional needs at a particular step and level. In effect, both the youngster's type of learning problem and the level of his remedial needs are identified only after the impact of each teaching strategy becomes apparent. It will also be noted that most Learning Disability teachers already employ these three levels of action in their classrooms; however, these teachers frequently have not conceptualized their procedures as discrete strategies and often employ them in a rather random manner. In contrast, what is being suggested here is that the approaches should be employed systematically, i.e., sequentially and hierarchically. As may be seen in Figure 1, the following sequence of events is recommended.

Step 1

Those youngsters in regular classroom programs who are doing poorly

(as reflected by such factors as being assigned D and/or F grades) are provided with a new learning environment where the program is personalized, i.e., where individual differences in development, motivation, and performance are accommodated and fostered and where a greater degree of deviation can be tolerated and/or compensated for. The establishment of a new environment is accomplished either by altering the regular classroom program or, if necessary, by removing the youngsters to another classroom. The implementation of Step 1 should be a sufficient remedial strategy for the children who have been referred to above as Type I learning problems. (If Step 1 is successful, it suggests that if the youngster had been in such an environment from the beginning of his schooling, he might not have had difficulties. Therefore, with a view to prevention, such a classroom environment might prove to be a prototype for all regular classroom programs.)

Having established such an environment (Step 1), it should be possible, then, to identify all three types of learning problem youngsters. Type I youngsters are those who are able to function effectively in the new learning environment; Type II are those who are able to function effectively in most areas of learning but who have occasional problems, e.g., memorizing such things as the times tables or some vocabulary words; Type III youngsters are those who continue to have pervasive learning problems. Since the first step is sufficient for the Type I youngsters, the next step focuses only on Type II and III learning problems.

Step 2

During the second step of the sequence, the teacher may employ up to three teaching strategies. However, the sequence and level of instructional focus of these three strategies differ for Type II and III youngsters. That

is Type II youngsters begin at Level a and Type III youngsters begin at Level c.

Sequence for Type II youngsters -- When a Type II learning problem youngster does have difficulty, the teacher must decide whether or not instruction can be delayed in that area, e.g., until a later time when learning might prove to be easier. If instruction cannot be delayed, then the next step in the sequential strategy is initiated (Step 2). The emphasis, at first, is on reteaching behaviors, skills, content and concepts related to basic school subjects (Level a); Level b instruction is initiated only if reteaching does not succeed; and Level c efforts are initiated only if Level b instruction proves to be unfruitful. Thus, it may be seen that the simplest and most direct approaches are employed first and that all three levels of instruction may not be necessary in remedying the learning problem.

More specifically, once the teacher decides that instruction cannot be delayed, her efforts are directed toward reteaching in the area of immediate difficulty (Level a). Such reteaching is not a matter of trying more of the same, e.g., more drill. Rather it requires the implementation of qualitatively different instructional approaches. That is, if a youngster is having difficulty with arithmetic or reading, the teacher attempts procedures which range from simply using a different kind of general explanation, technique, or material (e.g., another example or analogy; a "concrete" demonstration) to the use of specialized remedial procedures (e.g., a kinesthetic approach).

If the teacher finds reteaching in basic school subject areas (Level a) does not work, then she assesses whether the student lacks a necessary prerequisite, and if he does, she attempts to correct this

deficiency (Level b). For example, if a youngster is having difficulty with reading comprehension, the teacher might find that the student has little awareness of underlying concepts such as the relationship between the spoken and printed word, or the student may be deficient with regard to such basic educational skills as the ability to follow directions, answer questions and order and sequence events. If she is able to detect and correct such deficiencies, then she is in an improved position with regard to remedying the original problem.

However, if this remedial effort proves to be unfruitful, the teacher proceeds to the final strategy in the sequence (Level c) which involves assessing and remedying interfering behaviors and/or underlying process deficits, e.g., behavioral, perceptual-motor, linguistic problems. (There seems to be an unfortunate tendency for some educational, medical, and psychological specialists to bein at this level when working with any child who has been categorized as Learning Disabled.)

It should be noted that, once remediation at Level b or c is effective, there is, of course, still a need to return, sequentially, to the higher instructional levels. For example, if a student overcomes his basic problems at Level c, then the teacher is ready to reteach any necessary prerequisites which may not have been assimilated (Level b) and then to remedy the learning difficulty which originally set the entire sequence into motion (Level a).

Sequence for Type III youngsters -- In contrast to the Type II learning problem, the Type III youngster is characterized as having pervasive learning difficulties. Thus, after the first step, the sequential strategies begin at Level c. That is, initially, efforts are made to assess and remedy

interfering behaviors and/or underlying process deficits, and as some success at this level is achieved, the sequence proceeds so that needed prerequisites and basic school subjects can be acquired. However, even with Type III learning problems, there are likely to be some areas where the disorder is not severely handicapping and where learning can proceed developmentally or, at least, where remediation can be focused more directly and simply on Level b or a. Therefore, it seems probable that these students can pursue learning at several levels simultaneously.*

The Role of Specialized Teaching Techniques and Materials

Thus far the focus has been on a set of general teaching strategies which may be employed, systematically, in efforts to remedy and prevent learning problems. Before concluding, it seems appropriate to reflect briefly on the role played by special techniques and materials in correcting the learning problems of Type I, II and III youngsters. Every Learning Disability teacher, of course, has a "grab bag" of such specialized approaches, many of which are based on specific theoretical formulations which emphasize such ideas as stimulus bombardment or modality isolation. Since many of these remedial rationales are based on theories which view learning problems as stemming from disorders residing within the youngster, such techniques and materials and their rationales may prove to be valid for Type III and some Type II youngsters.

However, with reference to Type I and many Type II learning problems, the position taken in this article has been that the "disordered child"

*For purposes of closure, it should be noted that, if necessary, any youngster who has been removed from his regular classroom can be transitioned back when he is once again learning effectively (See Figure 1).

view is inappropriate. Nevertheless, such specialized techniques and materials can play an important role in the programs of such youngsters. Specifically, a variety of alternative approaches is seen as allowing the teacher to use and/or the student to find learning activities which not only are appropriate with regard to the youngster's strengths, weaknesses, and limitations, but which are novel and exciting and which have not become aversive, i.e., activities which facilitate, simultaneously, an increase in approach and a decrease in avoidance tendencies on the part of the student (and the teacher). For such youngsters, then, the impact of a particular technique and material is not seen as dependent on the validity of the procedure's underlying rationale; rather its effectiveness is viewed as depending on how successful the approach is in helping the teacher to maintain a student's attention and interest and, in general to facilitate learning.

In conclusion, then, it is emphasized that, in actual practice, the population labeled as Children with (Specific) Learning Disabilities has been and probably will continue for some time to be heterogeneous with regard to both etiology and appropriate remedial strategies. This state of affairs, of course, is detrimental to efforts directed at developing a comprehensive and meaningful body of knowledge with regard to Specific Learning Disabilities. Therefore, it seems reasonable to suggest that professionals who are concerned with developing such a body of knowledge need to devote increasing efforts to differentiating the Specific Learning Disabled youngster from others who are so labeled. It is to this end that the hypotheses and procedures formulated above have been presented, and it is felt that as these ideas are subjected to empirical investigation, we will be in a better position with regard to understanding the nature and scope of the problem with which we are confronted.

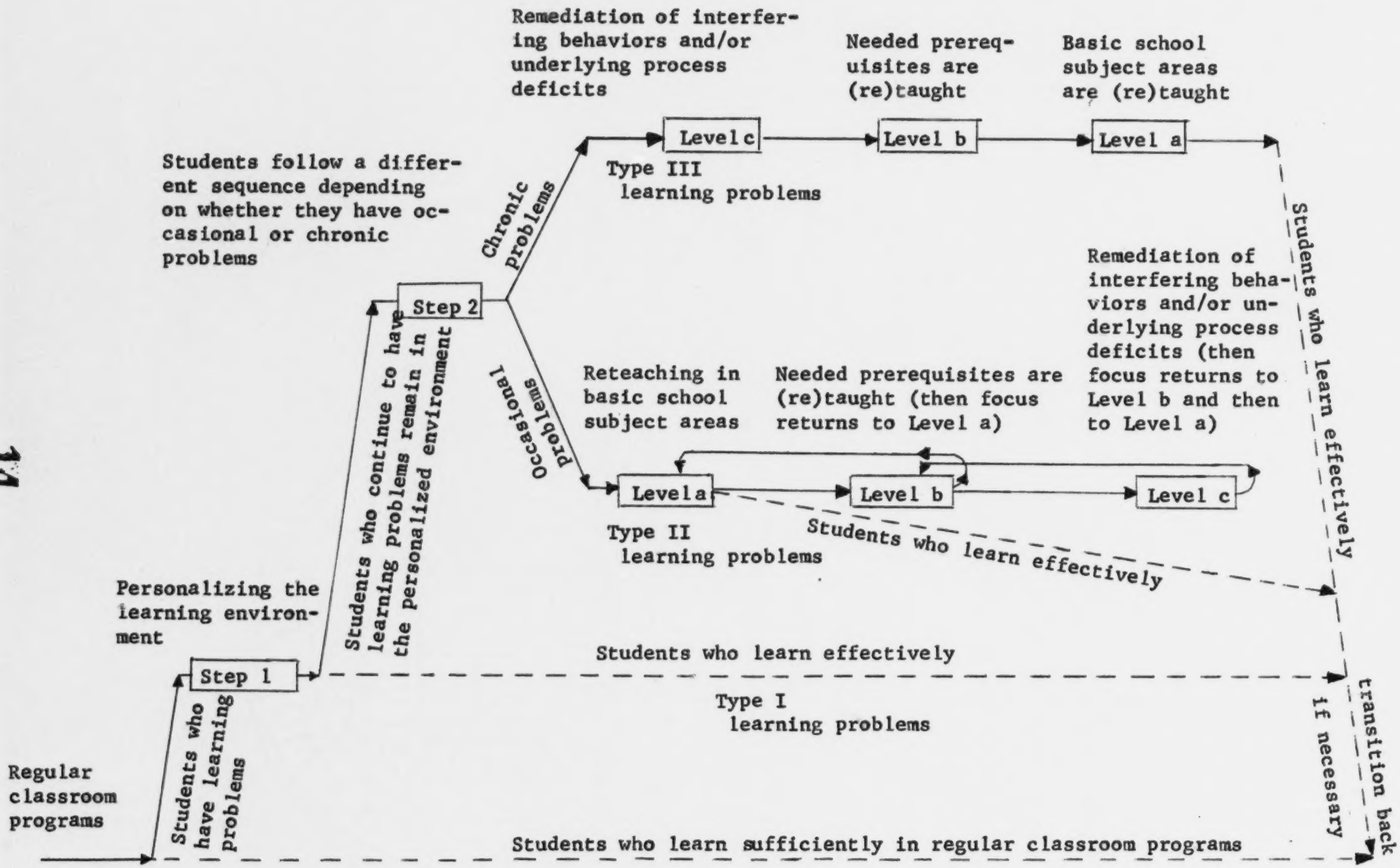
Remediation of interfering behaviors and/or underlying process deficits
Needed prerequisites are (re)taught
Basic school subject areas are (re)taught
Students follow a different sequence depending on whether they have occasional or chronic problems
Chronic problems
Level c
Level b
Level a
Type III learning problems
Students who learn effectively
Remediation of interfering behaviors and/or underlying process deficits (then focus returns to Level b and then to Level a)
Step 2
Occasional problems
Reteaching in basic school subject areas
Needed prerequisites are (re)taught (then focus returns to Level a)
Level a
Level b
Level c
Type II learning problems
Students who learn effectively
Students who continue to have learning problems remain in the personalized environment
Personalizing the learning environment
Step 1
Students who learn effectively
Type I learning problems
transition back if necessary
Regular classroom programs
Students who have learning problems
Students who learn sufficiently in regular classroom programs

Fig. 1. Sequential and hierarchical teaching strategies for remedying school learning problems.